

PATENT

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

Pham et al.

Application No. 10/676,388

Filed: September 30, 2003

For: SYSTEM, METHOD AND APPARATUS  
FOR APPLYING LIQUID TO A CMP  
POLISHING PAD

Group Art Unit: 3723

Examiner: THOMAS, D.

Atty. Docket No. LAM2P441

Date: April 4, 2005

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450 on April 4, 2005.

Signed:

  
Melinda M. WardSUBMISSION AFTER ALLOWANCE

Commissioner for Patents  
Alexandria, VA 22313-1450

Dear Sir:

Applicant respectfully requests this Submission After Allowance be placed in the file with the references. The references listed in the attached PTO Form 1449, copies of which are attached, may be material to examination of the above-identified patent application. Applicants submit these references in compliance with their duty of disclosure pursuant to 37 CFR §§ 1.56 and 1.97.

Applicant states that each item of information listed in the attached PTO Form 1449 was cited in a communication in a counterpart international application not more than three months prior to the filing of this statement. For the Examiner's use and information, a copy of the International Search Report in the corresponding international application is attached.

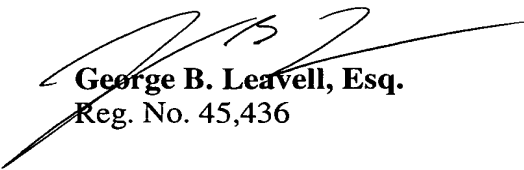
The International Searching Authority interprets US Pat 6,283,840 by Huey (hereafter the Huey reference) as the single "X" reference (i.e., a "document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone.") identified in the international search report.

Applicant respectfully submits that the Huey reference is a cumulative reference in view of the Kimura reference (US Pat App 2002/0023715 A1) that was cited by the Examiner and overcome in the previously filed communications to the PTO. In sum, the Huey reference teaches much higher flow rates of slurry (e.g., about 0.2 to 1.0 gallon per minute (about 750 cc to about 3800 cc per minute)) as compared to the 100 cc per minute slurry flow rate taught by the Applicant's application (See Col. 4, Ln. 20-35 of the Huey reference).

Applicant submits that, the Huey reference therefore does not teach nor suggest a method of delivering a liquid to a CMP polishing pad that includes supplying the liquid to a nozzle, the nozzle being oriented toward a polishing surface of the CMP polishing pad. The liquid flows at a rate of less than or equal to about 100 cc per minute. A pressurized carrier gas is also supplied to the nozzle simultaneously with the liquid. The liquid is substantially evenly sprayed from the nozzle onto the CMP polishing pad.

Applicant believes that no fees are due for this submission, however, the Commissioner is authorized to charge any additional fees that may be due to our Deposit Account No. 50-0805 (Order No. LAM2P441).

Respectfully submitted,  
MARTINE, PENILLA & GENCARELLA, LLP



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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
(Use as many sheets as necessary)

Sheet

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of

1

**Complete if Known**

Application Number	10/676,388
Filing Date	September 30, 2003
First Named Inventor	Pham
Art Unit	3723
Examiner Name	THOMAS, D.
Attorney Docket Number	LAM2P441

**U.S. Patent Documents**

Examiner Initials	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	B	2002/061722	May 23, 2002	Takasaki et al.	
	A	6,283,840	Sept. 4, 2001	Huey	
	C				
	D				
	E				
	F				
	G				
	H				

**Foreign Patent Documents**

Examiner Initial	Cite No. <sup>1</sup>	Foreign Patent Document No.	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number- <sup>4</sup> Kind Code <sup>5</sup> (if known)				
	J	WO 02/096600	Dec. 5, 2002	Koninkl Philips Electronics NV		<input type="checkbox"/>
	I	WO 03/011523	May 23, 2002	Applied Materials		<input type="checkbox"/>
	K					<input type="checkbox"/>
	L					<input type="checkbox"/>
	M					<input type="checkbox"/>

**Non Patent Literature Documents**

Examiner Initial	Cite No.	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	N	International Search Report
	O	
	P	
	Q	

Examiner Signature		Date Considered	
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Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language translation is attached.